

WHAT IS CLAIMED IS:

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1. A communication network system for converting action  
parameters contained in policy information obtained by  
abstracting network-related user requirements to  
5 parameters conforming to network technology and type of  
network element, and setting these parameters in the  
network element, said system comprising:

first conversion means for converting action  
parameters contained in the abstracted policy  
10 information to network-technology-dependent parameters;  
and

second conversion means for converting the  
parameters, which have been obtained by the conversion  
by said first conversion means, to parameters dependent  
15 upon type of network element and setting these  
parameters in the network element.

2. The system according to claim 1, wherein said first  
conversion means includes:

policy disassembling means for disassembling the  
20 abstracted policy information, extracting the action  
parameters and outputting the same;

conversion-rule storage means for storing  
conversion rules used when the action parameters are  
converted to network-technology-dependent parameters;  
25 and

conversion means for selecting a conversion rule  
conforming to a network technology and converting the  
action parameters to network-technology-dependent

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parameters using the selected conversion rule.

3. The system according to claim 1, wherein said second conversion means includes:

5 policy enforcement means for receiving the network-technology-dependent parameters from said first conversion means and setting, in a network element, element-dependent parameters obtained by converting the network-technology-dependent parameters;

10 conversion-rule storage means for storing conversion rules used when the network-technology-dependent parameters are converted to element-dependent parameters; and

15 conversion means for selecting a conversion rule conforming to type of network element and converting the network-technology-dependent parameters to element-dependent parameters using the selected conversion rule.

4. The system according to claim 2, wherein in said first conversion means:

20 said conversion-rule storage means stores conversion rules for every network technology; and

said conversion means selects a conversion rule based upon a network technology and converts the action parameters to network-technology-dependent parameters using the selected conversion rule.

25 5. The system according to claim 4, wherein said conversion-rule storage means stores the following as conversion rules for converting the action parameters to network-technology-dependent parameters:

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(1) a first parameter conversion rule relating to adaptation, (2) a second parameter conversion rule relating to monitoring, and (3) a third parameter conversion rule relating to protection;

5        said policy disassembling means disassembles the action parameters into (1) a parameter relating to adaptation, (2) a parameter relating to monitoring and (3) a parameter relating to protection; and

10        said conversion means converts each of the parameters to network-technology-dependent parameters using the first to third parameter conversion rules.

6. The system according to claim 2, wherein said first conversion means has policy storing means, network-technology-dependent parameters are stored on a per-end-  
15        to-end basis in said policy storing means, and when new policy information end to end is received, network-technology-dependent parameters conforming to this policy information are created using the technology-dependent parameters that have been stored in said  
20        policy storing means.

7. The system according to claim 3, wherein in said second conversion means:

      said rule-conversion storage means stores conversion rules on a per-element-type basis; and

25        said conversion means selects a conversion rule based upon the type of element and converts network-technology-dependent parameters to element-dependent parameters using the selected conversion rule.

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8. The system according to claim 3, wherein in said second conversion means:

5       said conversion-rule storage means adds on a conversion rule whenever a function of a network element is added on or changed; and

10       said conversion means selects a prescribed conversion rule upon taking the function of a network element or the number of versions of a network element into consideration, and converts the network-technology-dependent parameters to the element-dependent parameters using the selected conversion rule.

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